SYSTEM WITH COLOR-CODED MEDICAL SYRINGES AND BASINS

BACKGROUND OF THE INVENTION

[0001] 1. The Field of the Invention

[0002] The present invention relates to a medicinal fluid delivery system. More particularly, the present invention relates to a medicinal fluid delivery system having non-textual indicia to quickly identify a medicinal fluid container for filling an associated medicinal fluid delivery device with a desired medicinal fluid.

[0003] 2. The Relevant Technology

[0004] Medical syringes play a vital role in the treatment and care of patients in medical environments. Medical syringes provide a quick, easy and relatively unobtrusive means for administering medicinal fluids to a patient's body during a medical procedure.

[0005] In many medical procedures, several different medicinal fluids are utilized in connection with the care and treatment of a patient. Some medicinal fluids have similar remedial and/or chemical properties, whereas others can have quite different remedial effects. In some cases the use and/or mixing of medicinal fluids have divergent qualities that can be dangerous to the patient. During a particular medical procedure where multiple medicinal fluids, containers and medical syringes are utilized, a practitioner can become confused or unsure as to what medicinal fluid is contained in a particular medical syringe. For example, in some medical procedures multiple medicinal fluids are provided in a medical tray. Multiple containers, such as medicine cups or basins, are placed on the medical tray. The containers are then filled with a particular medicinal fluid so that the practitioner has quick and easy access to the medicinal fluids. During the course of the procedure the practitioner administers the various medicinal fluids to the patient. Where the practitioner empties all the medicinal fluid from one of the medical syringes and thereafter seeks to reload the same syringe with the same medicinal fluid, the practitioner can become confused as to the original contents of the syringe. In addition, during more complex procedures a practitioner may become confused as to what medicinal fluid is contained within a syringe.

[0006] One approach to resolve this confusion is to print a textual indication on the outside surface of the barrel of the syringe to indicate the medicinal fluid contained therein. While providing a textual indication of the contents of the syringe can be helpful to identify the fluid contained in the syringe, the textual indication does not resolve the problems associated with proper identification of syringes and associated medicinal fluids. For example, in complex or time sensitive procedures, the step of reading the textual indications may be overlooked or impractical due to the exigencies of the procedure. Additionally, the practitioner is forced to assume that a correct fluid has been loaded or reloaded into the syringe and that the syringe does in fact hold the indicated fluid. In addition, the textual indication may not facilitate reloading a particular syringe from a corresponding container holding the desired medicinal fluid.

BRIEF SUMMARY OF THE INVENTION

[0007] The present invention is directed to a medicinal fluid delivery system having color coding or other non-textual indicia that serve to associate a medicinal fluid delivery device with the corresponding medicinal fluid. The non-textual indicia allow a practitioner to quickly and effectively associate a medicinal fluid delivery device with the medicinal fluid container having the corresponding medicinal fluid. The present invention is helpful in surgical environments where multiple medicinal fluids, medicinal fluid containers, and medicinal fluid delivery devices are utilized during the course of a surgical procedure. The present invention helps to minimize the potential for error associated with the delivery of medicinal fluids by providing a mechanism to quickly and effectively associate a medicinal fluid delivery device with the corresponding medicinal fluid and medicinal fluid container.

[0008] In one exemplary embodiment, a medicinal fluid delivery system comprises a medicinal fluid delivery device, a medicinal fluid container, and color coding or other non-textual indicia to associate the medicinal fluid delivery device with the medicinal fluid container and the medicinal fluid contained therein. The medicinal fluid delivery device can comprise a medical syringe having a color coded plunger rod which is matched to the color of a medicinal fluid container, basin, or medicinal bottle. The color of the medical syringe and the corresponding color of the medicine cup allow a practitioner to quickly and effectively associate the medical syringe with the medicinal fluid contained in the associated medicine cup. In one embodiment, the color of the plunger rod and the medicinal fluid container is indicative of the fluid utilized therewith. In another embodiment, a different component of the medicinal fluid delivery device is color coded and only a portion of the medicine cup is the color coded.

[0009] In an alternative embodiment of the present invention, non-textual indicia comprise an indicator mechanism such as chemical indicator strips having an exposed reactant surface. The exposed reactant surface is configured to display a particular color when a medicinal fluid contacts the exposed surface. This allows a user to quickly look at the color on the indicator strip of the medicinal fluid delivery device and the color on the indicator strip of the medicinal fluid container to determine whether they contain the corresponding medicinal fluid. In one embodiment, a chemical indicator strip is embedded in the barrel of the syringe and an associated chemical indicator strip is embedded in an inner wall of the medicine cup. In another embodiment, the chemical indicator strip is embedded in an attachment member of the syringe, such as a luer coupler or stop cock.

[0010] In one embodiment, the medicinal fluid delivery device comprises a control syringe linked to a manifold having two or more input ports. In the embodiment, the first input port includes a color that corresponds to the color of an associated medicinal fluid container. The medicinal fluid container is a first medicinal syringe that includes a color corresponding to the color of the first input port. The color of the first input port and the corresponding color of the medical syringe facilitate quick and effective association between the first input port and the medicinal fluid contained within the first medical syringe.

[0011] These and other objects and features of the present invention will become more fully apparent from the following description, or may be learned by the practice of the invention as set forth hereinafter.